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10/542,611

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12/30/2008

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EXAMINER

BOLOURCHI, NADER

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

12/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,611	Applicant(s) SHINOI ET AL.	
	Examiner NADER BOLOURCHI	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. Applicant's amendment dated 8/25/2008 is entered.
2. Applicant canceling claims 12-22 is acknowledged.
3. No claim is allowed.

Response to Arguments

4. The amendment filed 8/25/2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is underlined as follows: Claim 23 recites (emphasis added):

the transmitting section transmits the test data to the communication apparatus and
transmits the packet data to the communication apparatus after transmission of the test data is
finished; and

Claim 33 recites (emphasis added):

transmitting the packet data to the communication apparatus after transmission of the test
data is finished; and

Examiner notes that specification discloses:

The idea of the present invention is to conduct an accuracy measurement test of a CQI (Channel Quality Indicator), which is indicative of propagation environment, by transmitting test data for a fixed period prior to the CQI accuracy measurement test, taking a CQI reported frequently among reported CQIs from the communication apparatus under test within that period as a fixed CQI, and transmitting accuracy measurement data for a fixed period at a transmission rate corresponding to the fixed CQI.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 23-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 23 (lines 3-8) and 33 (lines 4-9) use the phrase "packet" which is vague and unclear. It is not clear what term "packet" is referring to.

Phrase "packet", used in the "Background Art" section of the Applicant's Specification, for data to refer to the data transmitted for a fixed period of time (emphasis added):

20 Specifically, packets are transmitted for a fixed
period to a communication apparatus under test such as
a mobile station apparatus, with a transmission rate (that
is, a modulation scheme, coding rate, and transport block
size) corresponding to a fixed CQI, without regard to
25 the reported CQI from that communication apparatus.

Therefore, it should be equivalent to "transmit data" shown in Fig. 3 (emphasis added):

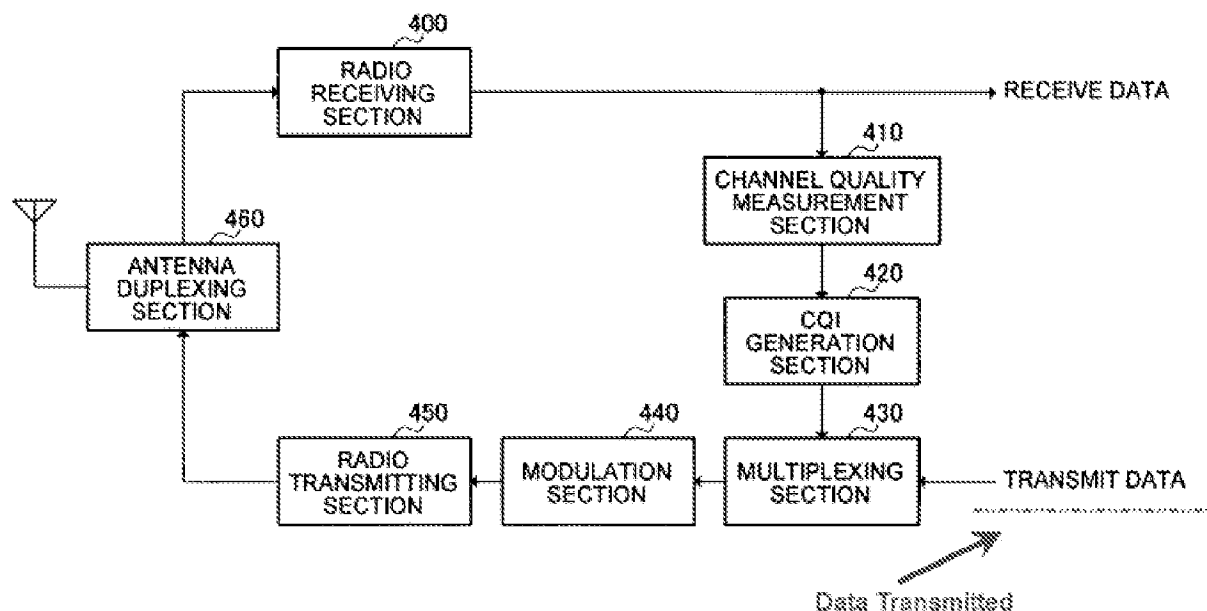


FIG.3

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Furthermore, Fig. 2 clearly indicates that the data transmitted could be either "test data" or "accuracy measurement data", which as discussed above, one should conclude that "packet" is a data equivalent to either "test data" or "accuracy measurement data" (emphasis added)

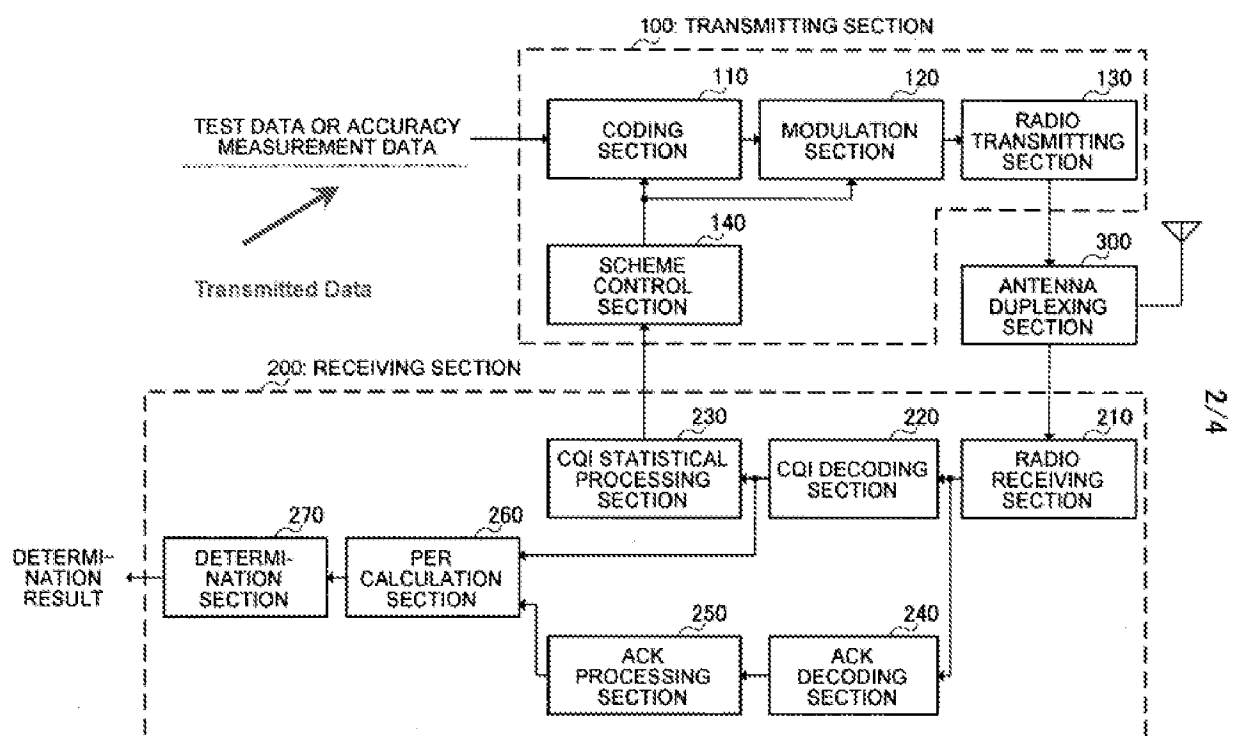


FIG.2

Which is in contradiction with the specification disclosing that the data transmitted must be "test data and accuracy measurement data", which makes one to conclude that "packet" is a data equivalent to "test data and accuracy measurement data" (emphasis added)

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FIG.2 is a block diagram showing the configuration
10 of an accuracy measurement apparatus according to an
embodiment of the present invention. The accuracy
measurement apparatus shown in FIG.2 is mainly composed
of a transmitting section 100 that transmits test data
and accuracy measurement data, a receiving section 200
15 that receives Ack/Nack indicating whether or not a
transmit signal has been received correctly and a reported
CQI from the communication apparatus under test, and an
antenna duplexing section 300 that shares an antenna
between transmitting section 100 and receiving section
20 200.

However, claims 23 (lines 3-8) and 33 (lines 4-9) use the phrase "packet" for data to refer only to "accuracy measurement data", which makes the term "packet" vague and indefinite.

Claims 24-32 are rejected due to their dependency to rejected claim 23.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 23-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over TR (3GPP, Draft TR 25.890v1.2.0, R4-021538 "HSDPA, UE Radio Transmission and Reception", RAN WG4 meeting #25, Secaucus, NJ, USA, November 2002) in view of Qualcomm (Qualcomm, R4-021533 "VRC Test Approach", RAN WG4 meeting #25, Secaucus, NJ, USA, November 2002).

Regarding claim 23, TR discloses a testing apparatus (section "7.2. Test Configuration" in page 10: Fig. 7.1) testing apparatus comprising: a setting section that sets a transmission scheme to be used for transmission to a communication apparatus wherein the setting section sets the transmission scheme to be used to transmit the packet data based on the reported value of channel quality reported from the communication apparatus in response to the test data ("the Modulation and Coding Controller (MCC) function embedded in the Node-B" in page 6: lines 14-17); a

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transmitting section that transmits packet data to the communication apparatus using the set transmission scheme wherein: the transmitting section transmits the test data to the communication apparatus and transmits the packet data to the communication apparatus after transmission of the test data is finished ("the Node-B" in page 6: lines 14-17); a determination section ("the Node-B emulator/MCC" in page 11: lines 5-12; "the assessment of the UE CQI behavior" in page 11: lines 13-18) that determines, based on a reception error rate of the transmitted packet data reported by the communication apparatus ("packet error rate" in page 11: lines 19-38), the requirement of a previously reported value of channel quality reported by the communication apparatus in relation to a transmission of test data ("required ... packet error rate" in page 11: lines 31-33). However, TR does not explicitly disclose that the test is an accuracy test and aforesaid **requirement** is the accuracy.

Qualcomm explicitly disclose that the determination section determines accuracy of said reported value ("verifying CQI reporting accuracy" in page 1: lines 7-13). Therefore, It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teaching of TR and Qualcomm for the purpose of "verify whether a UE is generating CQI reports that are in line with" modified "definition of CQI" as suggested by Qualcomm (page 1: lines 11-13).

Regarding claim 24, TR and Qualcomm disclose, as stated in rejection of claim 23 above. TR also discloses that the setting section sets, based on a reported value reported by each of the communication apparatuses in response to the test data (“received CQI from the UE” in page 11: 5-12), a transmission scheme for each communication apparatus (“the Modulation and Coding Controller (MCC) function embedded in the Node-B” in page 6: lines 14-17); the transmitting section transmits test data to a plurality of communication apparatuses and the transmitting section transmits packet data to each communication apparatus using the transmission scheme set for the communication apparatus (“a single packet” in page 11: lines 5-12); and the determination section determines, based on a reception error rate of the packet data reported by each communication apparatus, the accuracy of a previously reported value of channel quality reported by each communication apparatus in response to the communication of the test data (“packet error rate” in page 11: lines 19-38).

Regarding claim 25, TR and Qualcomm disclose, as stated in rejection of claim 23 above. TR also discloses that the setting section sets a fixed transmission scheme based on the reported value of channel quality reported by the communication apparatus in response to the test data (each row of table 8.2, which indicates a fix transmission for a given CQI report value).

Regarding claim 26, TR and Qualcomm disclose, as stated in rejection of claim 23 above. Qualcomm also disclose that the setting section sets the transmission scheme in

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accordance with statistics of the reported value of channel quality reported by the communication apparatus in response to the test data ("Received HS-DSCH data is assigned with a transport format which corresponds to the **statistical** median of all reported CQI from an UE under static channel condition" In page 1: lines 20-23).

Therefore, It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teaching of TR and Qualcomm for the purpose of "verify whether a UE is generating CQI reports that are in line with" modified "definition of CQI" as suggested by Qualcomm (page 1: lines 11-13).

Regarding claim 27, TR and Qualcomm disclose, as stated in rejection of claim 23 above. Qualcomm also disclose that the setting section sets the transmission scheme based on a median value of multiple reported values of channel quality reported by the communication apparatus in response to the test data ("Received HS-DSCH data is assigned with a transport format which corresponds to the statistical **median** of all reported CQI from an UE under static channel condition" In page 1: lines 20-23).

Therefore, It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teaching of TR and Qualcomm for the purpose of "verify whether a UE is generating CQI reports that are in line with" modified "definition of CQI" as suggested by Qualcomm (page 1: lines 11-13).

Regarding claim 28, TR and Qualcomm disclose, as stated in rejection of claim 23 above. TR also discloses that the transmitting section transmits the packet data to the

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communication apparatus using a predetermined channel (“the associated HS-DSCH” in page 11: lines 5-12).

Regarding claim 29, TR and Qualcomm disclose, as stated in rejection of claim 23 above. TR also discloses that the reported value of channel quality reported by the communication apparatus in response to the test data is generated based on a first signal; and the transmitting section transmits a second signal (“the associated HS-DSCH” in page 11: lines 5-12), different from the first signal, to the communication apparatus (“the HS-DPCCH sub-frame transporting the CQI report” in page 11: lines 5-12).

Regarding claim 30, TR and Qualcomm disclose, as stated in rejection of claim 23 above. Qualcomm also discloses that a calculation section (“Node B emulator” in page 3 lines 5-7) that calculates the reception error rate of the transmitted packet data in association with values indicating channel quantity reported by the communication apparatus (“ $PER(k)$ is the nominal packet error rate for CQI k given that CQI k was reported” in page 3: lines 1-18), wherein the determination section determines the accuracy of the reported value of channel quality reported by the communication apparatus (“ $PER(k)$... for CQI k ” in page 3: line 17) in response to the test data based on a reception error rate (“verifying CQI reporting accuracy” in page 1: lines 7-13) calculated by the calculation section in association with a specific value out of the

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values indicating the channel quality (“given that CQI k was reported” in page 3: line 17).

Regarding claim 31, TR and Qualcomm disclose, as stated in rejection of claim 23 above. Qualcomm also disclose that a calculation section (“Node B emulator” in page 3 lines 5-7) that calculates reception error rates of the transmitted packet data (“ $PER(k)$ is the nominal packet error rate for CQI k given that CQI k was reported” in page 3: lines 1-18) in association with a plurality of values indicating channel quality reported from the communication apparatus (“ $\sum_k \text{Prob}(\text{reportedCQI})$ ” in page 3: lines 1-18), wherein the determination section determines the accuracy of the reported value of channel quality reported from the communication apparatus in response to the test data based on the reception error rates calculated by the calculation section (“verifying CQI reporting accuracy” in page 1: lines 7-13) in association with: (1) a median value of the plurality of values indicating channel quality reported from the communication apparatus (“Received HS-DSCH data is assigned with a transport format which corresponds to the statistical **median** of all reported CQI from an UE under static channel condition” in page 1: lines 20-23) and (2) a value different from the median value by a predetermined level (“the transport block error probability would not exceed 0.1” in page 1: lines 16-19).

Regarding claim 32, TR and Qualcomm disclose, as stated in rejection of claim 23 above. TR also discloses a communication terminal testing apparatus (Fig. 7.1) comprising a pass/fail decision section (“ACK/NACK transfer” in section “6.2. Test

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configuration” page 10: lines 14-20) that decides whether a communication apparatus which is a target of a test, passes or fails (“If the maximum number of transmission attempts (specified in Annex A) is exceeded without reception of an ACK on the error-free uplink HS-DPCCH, the entire content of the information bit payload is assumed to have been lost” in page 8: lines 7-13), based on a test result in the accuracy testing apparatus (Fig. 7.1).

Regarding claim 33, TR discloses accuracy testing method (section “7.2. Test Configuration” in page 10: Fig. 7.1) comprising: a setting step of setting a transmission scheme to be used for transmission to a communication apparatus wherein the setting step sets the transmission scheme to be used to transmit the packet data based on the reported value of the channel quality reported by the communication apparatus in response to the test data (“the Modulation and Coding Controller (MCC) function embedded in the Node-B” in page 6: lines 14-17); a transmitting step of transmitting packet data to the communication apparatus using the set transmission scheme (“the Modulation and Coding Controller (MCC) function embedded in the Node-B” in page 6: lines 14-17), wherein the transmitting step comprising the steps of transmitting the test data to the communication apparatus; and transmitting the packet data to the communication apparatus after transmission of the test data is finished (“the Node-B” in page 6: lines 14-17); a determination step (“the Node-B emulator/MCC” in page 11: lines 5-12; “the assessment of the UE CQI behavior” in page 11: lines 13-18) of determining, based on a reception error rate of the transmitted packet data reported by

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the communication apparatus, the **requirement** of a previously reported value of channel quality reported by the communication apparatus in relation to a transmission of test data ("required ... packet error rate" in page 11: lines 31-33) based on a reception error rate of said packet data transmitted in said transmitting step ("packet error rate" in page 11: lines 19-38). However, TR does not explicitly disclose that the test is an accuracy test and aforesaid **requirement** is the accuracy.

Qualcomm explicitly disclose that the determination section determines accuracy of said reported value ("verifying CQI reporting accuracy" in page 1: lines 7-13). Therefore, It would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teaching of TR and Qualcomm for the purpose of "verify whether a UE is generating CQI reports that are in line with" modified "definition of CQI" as suggested by Qualcomm (page 1: lines 11-13)

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gesbert et al. (US 6760882 B1); Balachandran et al. (EP 0 944 201 A2); Ahkubo et al. (WO 01/78324 A1).

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

11. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nader Bolourchi whose telephone number is (571) 272-8064. The examiner can normally be reached on M-F 8:30 to 4:30.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David. C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/David C. Payne/

Supervisory Patent Examiner, Art Unit 2611